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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,044	03/26/2004	Rebecca Castle	2003M001	8406
7590 Infineum USA L.P. Law Department 1900 East Linden Avenue P.O. Box 710 Linden, NJ 07036-0710				
			EXAMINER	
			MCAVOY, ELLEN M	
			ART UNIT	PAPER NUMBER
			1797	
			MAIL DATE	DELIVERY MODE
			09/13/2010 PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/810,044

**Applicant(s)**

CASTLE, REBECCA

**Examiner**

Ellen M. McAvoy

**Art Unit**

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 9-13 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9-13 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions including amendments to the claims and remarks, filed on 29 June 2010, have been entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 9-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al (6,444,624) in combination with Potter et al (5,771,873) .

Applicant's arguments filed 29 June 2010 have been fully considered but they are not persuasive. As previously set forth, Walker et al ["Walker"] disclose multigrade lubricating oil compositions suitable for the crankcase of internal combustion engines which comprise a basestock containing from 0 to less than 10% of Group I and/or Group II basestocks, a molybdenum additive including molybdenum dithiocarbamates and trinuclear molybdenum compounds that provide not greater than 1000 ppm of molybdenum to the lubricating oil composition, a calcium detergent, a viscosity modifier and one or more other additives. See

column 3, line 29 to column 4. Applicant's invention differs by applying the engine lubricating oil composition to an internal combustion engine having one or more component parts coated with a diamond-like carbon film or coating. However, such is well-known in the art as set forth in Potter et al ["Potter"].

Potter discloses internal combustion engine components such as intake and exhaust valves, or any other component near or within the combustion chamber, coated with an amorphous hydrogenated carbon (AHC) film coating to prevent the formation of carbonaceous deposits thereon (Abstract). Potter discloses that the use of a carbon based film creates a hard coating with a low coefficient of friction, and that a diamond-like carbon-based film (DLC) imparts hardness properties. The examiner is of the position that Potter meets the limitations of the "surface of a metal engine part or component selected from the group consisting of a cam shaft, piston, cylinder liner and valve, which surface is coated with a diamond-like carbon film or coating" of amended claim 1 as set forth in applicant's specification on page 2. Thus having the prior art references before the inventor at the time the invention was made it would have been obvious to have lubricated an internal combustion engine containing engine parts coated with a diamond-like carbon film with the lubricating oil composition of Walker. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation relied on by the examiner is the disclosure in the applied references to provide

internal combustion engines with increased demands of lower friction losses and improved exhaust emission outputs.

***Claim Rejections - 35 USC § 103***

Claims 1, 2, 9-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al (6,444,624) in combination with Nakahigashi et al (6,893,720).

Applicant's arguments filed 29 June 2010 have been fully considered but they are not persuasive. As previously set forth, Walker et al ["Walker"] disclose multigrade lubricating oil compositions suitable for the crankcase of internal combustion engines which comprise a basestock containing from 0 to less than 10% of Group I and/or Group II basestocks, a molybdenum additive including molybdenum dithiocarbamates and trinuclear molybdenum compounds that provide not greater than 1000 ppm of molybdenum to the lubricating oil composition, a calcium detergent, a viscosity modifier and one or more other additives. See column 3, line 29 to column 4. Applicant's invention differs by applying the engine lubricating oil composition to an internal combustion engine having one or more component parts coated with a diamond-like carbon film or coating. However, such is well-known in the art as set forth in Nakahigashi et al ["Nakahigashi"]

Nakahigashi discloses an object such as an automobile part, an image forming apparatus part, a bicycle part or other machine parts having a surface entirely or partially coated with a carbon film, typically a diamond-like carbon film, having wear resistance as well as at least one of a lubricity, a water repellency and a gas barrier property. Automobile parts disclosed in

Nakahigashi include dampers, hoses, tires as well as automobile valve parts, gears, bearings, and other parts. See columns 3-4. Thus having the prior art references before the inventor at the time the invention was made it would have been obvious to have lubricated an internal combustion engine containing automotive parts coated with a diamond-like carbon film with the lubricating oil composition of Walker. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation relied on by the examiner is the disclosure in the applied references to provide internal combustion engines with increased demands of lower friction losses and improved exhaust emission outputs.

In response applicant argued that the amended claims are drawn to metal cam shaft parts, pistons, cylinder liners and engine valves, none of which are disclosed or suggested by the Nakahigashi et al patent. This is not deemed to be persuasive because automobile parts disclosed in Nakahigashi include dampers, hoses, tires as well as automobile valve parts, gears, bearings, and other parts. See column 4, lines 27-29, for valve parts and lines 41-44 for gears and bearings. Thus the examiner maintains the position that Walker in combination with Nakahigashi meets the limitations of the above rejected claims.

***Conclusion***

The rejection of claims 1, 2, 9-13 and 16 under 35 U.S.C. 103(a) as being unpatentable over Naitoh et al (6,063,741) in combination with either Iwashita et al (6,139,022) or Iwashita et al (6,325,385) made in the previous office action is withdrawn in view of further consideration. Specifically, the molybdenum dithiocarbamate compounds disclosed in Naitoh et al do not appear to be trinuclear molybdenum compounds ( $\text{Mo}_3$ ) as required by independent claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ellen M McAvoy/  
Primary Examiner  
Art Unit 1797

EMcAvoy  
September 9, 2010